

AMENDMENTS TO THE CLAIMS:

This listing of the claims below will replace all prior versions and listing of claims in this application.

Listing of Claims

1. (Canceled)

2. (Currently amended) A genetically modified dicotyledonous plant cell comprising one or more foreign nucleic acid molecules ~~whose presence and/or expression reduces the activity of one or more endogenously occurring SSIII proteins, one or more endogenously occurring BEI proteins, and one or more endogenously occurring BEII proteins in the plant cell in comparison with a corresponding wild type plant cell, which has not been genetically modified;~~

wherein said one or more foreign nucleic acid molecules reduce the expression of: (1) an endogenous gene encoding a binding domain of a SSIII protein comprising at least 95% identity with the amino acid sequence of SEQ ID NO: 3; (2) a BEI protein comprising at least 95% identity to the amino acid sequence of SEQ ID NO: 5; and (3) a BEII protein comprising at least 95% identity with the amino acid sequence of SEQ ID NO: 7; and wherein said one or more foreign nucleic acid molecules is selected from:

- (a) a DNA molecule encoding at least one antisense RNA that reduces the expression of at least one endogenous gene encoding a binding domain of a SSIII protein comprising at least 95% identity with the amino acid sequence of SEQ ID NO: 3, a BEI protein comprising at least 95% identity to the amino acid sequence of SEQ ID NO: 5, and/or a BEII protein comprising at least 95% identity with the amino acid sequence of SEQ ID NO: 7;
- (b) a DNA molecule which, via a co-suppression effect, reduces the expression of at least one endogenous gene encoding a binding domain of a SSIII protein comprising at least 95% identity with the amino acid sequence of SEQ ID NO: 3, a BEI protein comprising at least 95% identity to the amino acid sequence of SEQ ID NO: 5, and/or a BEII protein comprising at least 95% identity with the amino acid sequence of SEQ ID NO: 7; ~~or~~
- (c) a DNA molecule that simultaneously encodes at least one antisense RNA and at least one sense RNA, where said antisense RNA and said sense RNA form a double-stranded

RNA molecule that reduces the expression of at least one endogenous gene encoding a binding domain of a SSIII protein comprising at least 95% identity with the amino acid sequence of SEQ ID NO: 3, a BEI protein comprising at least 95% identity to the amino acid sequence of SEQ ID NO: 5, and/or a BEII protein comprising at least 95% identity with the amino acid sequence of SEQ ID NO: 7, and

(d) combinations thereof;

and wherein said genetically modified dicotyledonous plant cell synthesizes a modified starch, comprising starch which after gelatinization of a 6% suspension in water forms a gel with a gel strength that is increased by at least 300% in comparison with the gel strength of starch extracted from a corresponding wild-type plant cell, which has not been genetically modified.

3. (Currently amended) A plant comprising plant cells according to Claim 1 2.

4. (Canceled)

5. (Currently amended) A method for generating a genetically modified dicotyledonous plant which synthesizes a modified starch, comprising

a) ~~introducing into a plant cell one or more foreign nucleic acid molecules whose presence and/or expression reduces the activity of at least one endogenously occurring SSIII protein, at least one endogenously occurring BEI protein, and at least one endogenously occurring BEII protein in comparison with a corresponding wild-type plant cell which has not been genetically modified;~~

b) regenerating a plant from, or using, said cell generated in accordance with a); and

c) optionally generating further plants from said plants generated in accordance with step b),

wherein said one or more foreign nucleic acid molecules reduce the expression of: (1) an endogenous gene encoding a binding domain of a SSIII protein comprising at least 95% identity with the amino acid sequence of SEQ ID NO: 3; (2) a BEI protein comprising at least 95% identity to the amino acid sequence of SEQ ID NO: 5; and (3) a BEII protein comprising at least 95% identity with the amino acid sequence of SEQ ID NO: 7; and wherein said one or more foreign nucleic acid molecules is selected from:

(i) a DNA molecule encoding at least one antisense RNA that reduces the expression of at least one endogenous gene encoding a binding domain of a SSIII protein comprising at least 95% identity with the amino acid sequence of SEQ ID NO: 3, a BEI protein comprising at least 95% identity to the amino acid sequence of SEQ ID NO: 5, and/or a BEII protein comprising at least 95% identity with the amino acid sequence of SEQ ID NO: 7;

(b) a DNA molecule which, via a co-suppression effect, reduces the expression of at least one endogenous gene encoding a binding domain of a SSIII protein comprising at least 95% identity with the amino acid sequence of SEQ ID NO: 3, a BEI protein comprising at least 95% identity to the amino acid sequence of SEQ ID NO: 5, and/or a BEII protein comprising at least 95% identity with the amino acid sequence of SEQ ID NO: 7; ~~or~~

(c) a DNA molecule that simultaneously encodes at least one antisense RNA and at least one sense RNA, where said antisense RNA and said sense RNA form a double-stranded RNA molecule that reduces the expression of at least one endogenous gene encoding a binding domain of a SSIII protein comprising at least 95% identity with the amino acid sequence of SEQ ID NO: 3, a BEI protein comprising at least 95% identity to the amino acid sequence of SEQ ID NO: 5, and/or a BEII protein comprising at least 95% identity with the amino acid sequence of SEQ ID NO: 7, and

(d) combinations thereof;

and wherein said genetically modified dicotyledonous plant synthesizes a modified starch, comprising starch which after gelatinization of a 6% suspension in water forms a gel with a gel strength that is increased by at least 300% in comparison with the gel strength of starch extracted from a corresponding wild-type plant, which has not been genetically modified.

6. (Previously presented) The plant according to Claim 3, wherein said plant is a starch-storing plant.
7. (Previously presented) The plant according to Claim 6, wherein said plant is a potato plant.
8. (Previously presented) Propagation material of plants according to Claim 3.

9. (Currently amended) A method for generating genetically modified dicotyledonous plant cells comprising

introducing into a plant cell one or more foreign nucleic acid molecules, ~~whose presence and/or expression reduces the activity of one or more endogenously occurring SSIII proteins, one or more endogenously occurring BEI proteins, and one or more endogenously occurring BEII proteins in the plant cell in comparison with a corresponding wild-type plant cell which has not been genetically modified~~

wherein said one or more foreign nucleic acid molecules reduce the expression of: (1) at least one endogenous gene encoding a binding domain of a SSIII protein comprising at least 95% identity with the amino acid sequence of SEQ ID NO: 3; (2) a BEI protein comprising at least 95% identity to the amino acid sequence of SEQ ID NO: 5; and (3) a BEII protein comprising at least 95% identity with the amino acid sequence of SEQ ID NO: 7; and wherein said one or more foreign nucleic acid molecules is selected from:

- (a) a DNA molecule encoding at least one antisense RNA that reduces the expression of at least one endogenous gene encoding a binding domain of a SSIII protein comprising at least 95% identity with the amino acid sequence of SEQ ID NO: 3, a BEI protein comprising at least 95% identity to the amino acid sequence of SEQ ID NO: 5, and/or a BEII protein comprising at least 95% identity with the amino acid sequence of SEQ ID NO: 7;
- (b) a DNA molecule which, via a co-suppression effect, reduces the expression of at least one endogenous gene encoding a binding domain of a SSIII protein comprising at least 95% identity with the amino acid sequence of SEQ ID NO: 3, a BEI protein comprising at least 95% identity to the amino acid sequence of SEQ ID NO: 5, and/or a BEII protein comprising at least 95% identity with the amino acid sequence of SEQ ID NO: 7; ~~or~~
- (c) a DNA molecule that simultaneously encodes at least one antisense RNA and at least one sense RNA, where said antisense RNA and said sense RNA form a double-stranded RNA molecule that reduces the expression of at least one endogenous gene encoding a binding domain of a SSIII protein comprising at least 95% identity with the amino acid sequence of SEQ ID NO: 3, a BEI protein comprising at least 95% identity to the amino acid sequence of SEQ ID NO: 5, and/or a BEII protein comprising at least 95% identity with the amino acid sequence of SEQ ID NO: 7, and

(d) combinations thereof:

and wherein said genetically modified dicotyledonous plant cells synthesize a modified starch, comprising starch which after gelatinization of a 6% suspension in water forms a gel with a gel strength that is increased by at least 300% in comparison with the gel strength of starch extracted from corresponding wild-type plant cells, which have not been genetically modified.

10. (Withdrawn) Starch obtained from plant cells according to Claim 1.
11. (Withdrawn) Starch according to Claim 10, wherein said starch is a potato starch.
12. (Withdrawn) A method for producing a starch, comprising extracting said starch from a plant cell according to Claim 1.
13. (Withdrawn) Starch obtained by the method according to Claim 12.
14. (Previously presented) A method for modifying the starch of a plant, comprising generating the plant according to Claim 3 and obtaining starch from said plant or starch-containing parts thereof.
15. (Previously presented) The plant obtainable by the method according to Claim 5, wherein said plant is a starch-storing plant.
16. (Previously presented) Propagation material of plants according to Claim 15.
17. (Withdrawn) Starch obtained from a plant according to Claim 15.
18. (Withdrawn) Starch according to Claim 17, wherein said starch is a potato starch.
19. (Withdrawn) A method for producing a starch, comprising extracting said starch from a plant according to Claim 15.

20. (Previously presented) A method for modifying the starch of a plant, comprising generating a plant according to Claim 15 and obtaining starch from said plant or starch-containing parts thereof.
21. (Canceled)